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SPECIFICATION FOR APPROVAL

CUSTOMER	Blume-Benning
CERTIFIED MODEL/TYPE	PPL05850-A4B2
PART NO.	PPL05850NA4B2C0026(RoHS)
APPLICATION	
CUSTOMER P/N	
ISSUE DATE	Dec.26.2024
REV. NO.	
REV. DATE	

FOR CUSTOMER APPROVAL	CHECKED BY
	Haili Gong
	APPROVED BY
	Huaifang Zhang

REVISED RECORD SHEET

REV. NO	REV. DATE	REVISED CONTENT

INDEX

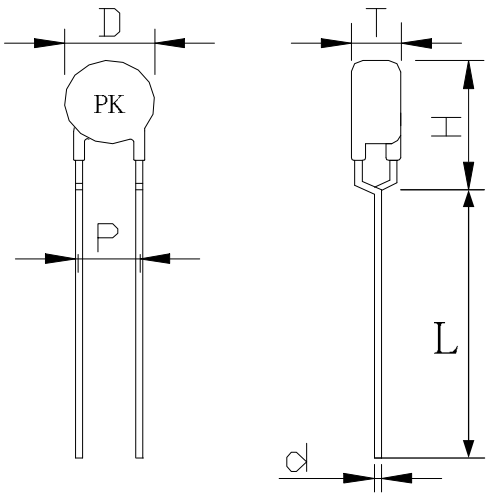
Part Number Code

Example :

PP	L	05	850	N	A4	B2	C	0	026
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)

No.	Item	Digit	Specification
(1)	Product Type	PP	Thinking PP type
(2)	Type Series	L	Lead type
(3)	Size	05	φ5 mm
(4)	Resistance(R_{25})	850	$85*10^{0}\Omega=85\Omega$
(5)	Tolerance of R_{25}	N	± 30%
(6)	Curie Temperature	A4	140℃
(7)	Rated Voltage	B2	220V
(8)	Packaging	C	RoHS compliance
(9)	App code	0	Overload protection
(10)	Optional Suffix	026	Silicon coating

Structure and Dimensions



(unit : mm)

Item.	D	T	P	d	H	L
Max	7.0	5.0	6.0	0.62	10.5	---
Min	4.5	3.0	4.0	0.58	---	25

Electrical Characteristics

Part No.	Curie Temperature	Zero-power Resistance at 25+/-2℃	Rated Voltage	Max. Current
	Tc (℃)	R_{25} (Ω)	VR (Vac)	Imax (A)
PPL05850NA4B2C0026	140(typ)	85±30%	220	0.55

Part No.	Trip Current at 25±2℃	Non-operating Current at 25±2℃	Operating Temperature Range ($V=V_{max}$)	Operating Temperature Range (V=0)
	It (mA)	I_N (mA)	(℃)	(℃)
PPL05850NA4B2C0026	152	76	0~60	-25~+125

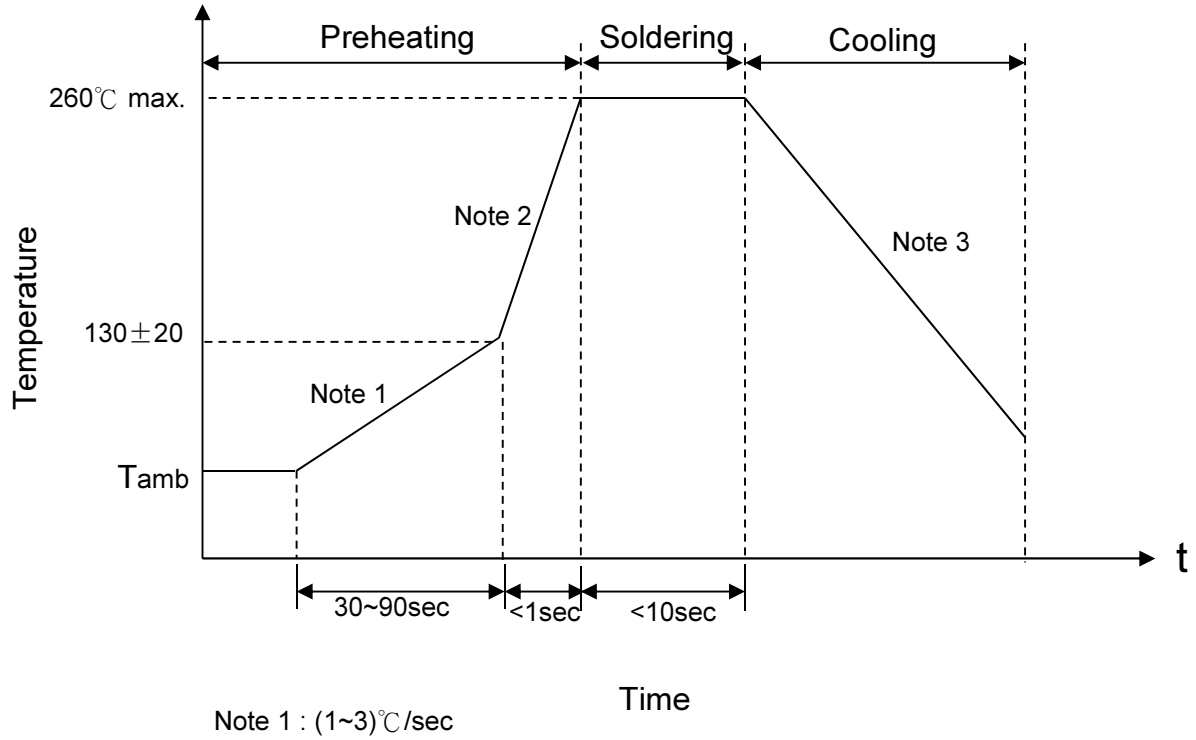
Note:Due to the mechanical force, which is acted on the wire lead, the coating may have cracks and chips. However, it does not affect the performance and reliability of the component.

Reliability

<table>
<tr><th>Item</th><th>Standard</th><th>Test conditions / Methods</th><th>Specifications</th></tr>
<tr><td>Robustness of Terminations</td><td>IEC 60738-1</td><td>Gradually apply the specified force and keep the unit fixed for10±1 sec.
<table><tr><th>Terminal diameter (mm)</th><th>Force T(N)</th></tr><tr><td>0.35<d≦0.5</td><td>5.0</td></tr><tr><td>0.5<d≦0.8</td><td>10.0</td></tr><tr><td>0.8<d≦1.25</td><td>20.0</td></tr></table></td><td>$\lvert \triangle R_{25}/R_{25} \rvert \leqq 20\%$
No visible damage</td></tr>
<tr><td>Solderability</td><td>IEC 60738-1</td><td>245 ± 3 ℃ , 2± 0.5 sec</td><td>At least 95% of terminal electrode is covered by new solder</td></tr>
<tr><td>Resistance to Soldering Heat</td><td>IEC 60738-1</td><td>260 ± 3 ℃ , 10 ± 1 sec</td><td>$\lvert \triangle R_{25}/R_{25} \rvert \leqq 20\%$
No visible damage</td></tr>
<tr><td>Vibration</td><td>IEC 60738-1</td><td>Frequency range:10~55Hz
Amplitude:0.75mm or 98m/S^2
Direction:3 mutually perpendicular directions
Duration :6HRS(3x2HRS)</td><td>$\lvert \triangle R_{25}/R_{25} \rvert \leqq 20\%$
No visible damage</td></tr>
<tr><td>Shock</td><td>IEC 60738-1</td><td>Wave:half-sine
⊿V:1.0m/s
Acceleration:50m/s^2
Pulse time:30ms</td><td>$\lvert \triangle R_{25}/R_{25} \rvert \leqq 20\%$
No visible damage</td></tr>
<tr><td>Rapid Change of Temperature</td><td>IEC 60738-1</td><td>The thermal shock conditions shown below shall be repeated 5 cycles
<table><tr><th>Step</th><th>Temperature(℃)</th><th>Period(minutes)</th></tr><tr><td>1</td><td>-40 ± 5</td><td>30 ± 3</td></tr><tr><td>2</td><td>Room temperature</td><td>5 ± 3</td></tr><tr><td>3</td><td>85 ± 5</td><td>30 ± 3</td></tr><tr><td>4</td><td>Room temperature</td><td>5 ± 3</td></tr></table></td><td>$\lvert \triangle R_{25}/R_{25} \rvert \leqq 20\%$
No visible damage</td></tr>
<tr><td>Climatic Sequence</td><td>IEC 60738-1</td><td>Dry heat: 125 ℃ for 16 hrs
Damp heat first cycle: 40℃, 95% R.H ,cycle time: 24 hrs
Cold: -40℃ for 2 hrs
Damp heat (cyclic), remaining cycles: 5 cycles
Test according to IEC60068-2-30</td><td>$\lvert \triangle R_{25}/R_{25} \rvert \leqq 20\%$
No visible damage</td></tr>
<tr><td>Damp Heat, Steady State</td><td>IEC 60738-1</td><td>40±2℃,90~95%RH,1000±2hrs</td><td>$\lvert \triangle R_{25}/R_{25} \rvert \leqq 20\%$
No visible damage</td></tr>
<tr><td>Endurance at Maximum Operating Temperature and Maximum Voltage</td><td>IEC 60738-1</td><td>UCT=60℃, VR, It≦I≦Imax , 1000±2hrs</td><td>$\lvert \triangle R_{25}/R_{25} \rvert \leqq 20\%$
No visible damage</td></tr>
<tr><td>Endurance at Maximum Voltage</td><td>IEC 60738-1</td><td>25±5℃, VR, It ≦ I ≦ Imax
1min. on and 5min. Off ×100cycles</td><td>$\lvert \triangle R_{25}/R_{25} \rvert \leqq 20\%$
No visible damage</td></tr>
</table>

Soldering Recommendation

Wave Soldering Profile



Note 1 : (1~3)℃/sec
Note 2 : Approx. 200℃/sec
Note 3 : 5℃/sec Max

Recommended Reworking Conditions with Soldering Iron

Item	Conditions
Temperature of Soldering Iron-tip	360℃ (max.)
Soldering Time	3 sec (max.)
Distance from Thermistor	2 mm (min.)

RoHS Compliant Declaration

We hereby declare that the components delivered to your company are compliant with RoHS directive 2015/863/EU.

Restriction of Weapon and Military End-Use

Thinking has established and implemented the fundamental policy on none of our product should be used or sold, through any channels, for use in the design, development, production, utilization, maintenance or operation of, or otherwise contribution to any weapons (Weapons of Mass Destruction [nuclear, chemical or biological weapons or missiles] or conventional weapons) or goods or systems specially designed or intended for military end-use or utilization by military end-users.

Warehouse Storage Conditions of Products

(I) Storage Conditions :

1.Storage Temperature : -10℃~+40℃

2.Relative Humidity : ≦75%RH

3.Keep away from corrosive atmosphere and sunlight.

(II) Period of Storage : 1 year

Safety Approvals (Certified Model/Type : PPL05850-A4B2)

* UL 1434 / cUL recognized (File # E138827)

* TÜV recognized (File # R50143310)

Certificates

(1) IATF 16949 certificate
(2) ISO 9001 certificate

Test Report

(1) RoHS test report